

Material Safety Data Sheet

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Infosafe No. SHW6M Issue Date : March 2007 ISSUED by SHINAGAW
Product Name : FIRECLAY FG30

Not classified as hazardous according to criteria of NOHSC

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name FIRECLAY FG30
Product Use Refractory fireclay mortar for setting refractory bricks.

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Name	CAS	Proportion
	Aluminum Oxide	1344-28-1	40-60 %
	Silica (crystalline-fused)	60676-86-0	50-60 %

3. HAZARDS IDENTIFICATION

Route(s) of Entry Inhalation

Signs and Symptoms of Exposure Eye contact: Physical irritation, laceration
Skin contact: Physical irritation
Ingestion: Temporary irritation to the gastrointestinal tract.
Inhalation: Decline in pulmonary function and abnormal chest x-rays.

Medical Conditions Generally Aggravated by Exposure Dust from this product may aggravate existing chronic lung conditions such as bronchitis, emphysema and asthma.

4. FIRST AID MEASURES

Inhalation Remove victim to fresh air. Seek medical advice if effects persist.

Ingestion Rinse mouth thoroughly with water immediately. Seek medical advice.

Skin Wash with plenty of soap and water. If irritation occurs seek medical advice.

Eye Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open.

First Aid Facilities Eye wash station, safety shower and normal washroom facilities.

Advice to Doctor Treat symptomatically.

5. FIRE FIGHTING MEASURES

This product is non flammable and non explosive.

Extinguishing Media This material is non-combustible, use extinguishing media appropriate to surrounding fire.

Specific Hazards Not applicable.

Hazardous Combustion Products Non combustible material.

Decomposition Temp. As manufactured, this product is an alumino-silicate material. In service, alumino-silicates may transform upon heating to mullite and crystalline silica (cristobalite or quartz).

6. ACCIDENTAL RELEASE MEASURES

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Spills & Disposal Sweep up, but avoid generating dust. Wear an appropriate respirator. Spills may be dampened down prior to clean up to avoid dust generation.

Environmental This product is not especially harmful to the environment.

Precautions

7. HANDLING AND STORAGE

In storage, keep free from rain and water.

Storage Store in a cool, dry place.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Exposure Limits	Name	STEL		TWA		Footnote
		mg/m ³	ppm	mg/m ³	ppm	
	Aluminum Oxide			15		Respirable dust
Respiratory Protection	A half face (P1 or P2) respirator should be worn during work in enclosed or poorly ventilated spaces, or where evidence suggests that dust levels may exceed the exposure standards. All respiratory devices should be tested for compliance with AS/NZS 1715 & AS/NZS 1716.					
Eye Protection	Safety glasses, goggles or faceshield as appropriate.					
Hand Protection	The wearing of gloves is recommended.					
Footwear	Safety boots with reinforced, protective toecaps.					
Body Protection	Overalls or similar protective apparel.					
Eng. Controls	Avoid generating and inhaling dusts. Maintain concentration below recommended exposure limit. Use with adequate ventilation. Consider mechanical ventilation.					
Hygiene Measures	Wash hands before eating, drinking or smoking. Launder contaminated clothing before re-use.					

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Aggregate with fine powder matrix.
Decomposition Temperature	As manufactured, this product is an alumino-silicate material. In service, alumino-silicates may transform upon heating to mullite and crystalline silica (cristobalite or quartz).
Melting Point	>1800
Solubility in Water	Insoluble
Specific Gravity (H₂O=1)	Not applicable
Flammability	Non combustible material.
Flammable Limits LEL	N/A
Flammable Limits UEL	N/A

10. STABILITY AND REACTIVITY

Stability	Stable
Hazardous Polymerization	Will not occur

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Hazardous Reaction This product is not considered to be flammable but the action of heat may cause a variety of organic decomposition products to be formed, some of which may be hazardous.

11. TOXICOLOGICAL INFORMATION

Toxicology Information OTHER INFORMATION TOXICOLOGY
The most recent review of the scientific evidence on the hazard to human health of silica was undertaken by the International Agency for Research on Cancer (IARC) in 1996, to update its 1987 monograph, and published in June 1997:
'There is sufficient evidence in humans for the carcinogenicity of inhaled crystalline silica in the form of quartz or cristobalite from occupational sources.
There is inadequate evidence in humans for the carcinogenicity of amorphous silica.
There is sufficient evidence in experimental animal studies for the carcinogenicity of quartz and cristobalite.
There is inadequate evidence in experimental animal studies for the carcinogenicity of synthetic amorphous silica.'
This product is a Alumino-Silicate material, in service this material may see temperatures sufficiently high enough (>980 deg.C) to partially transform the silica present to a crystalline form.

Inhalation Inhalation of dust may result in respiratory irritation.

Ingestion May cause gastric irritation.

Skin Repeated or prolonged skin contact may lead to irritation.

Eye May be an eye irritant.

Chronic Effects Prolonged or repeated inhalation of dusts above the exposure standard which may be generated when installing this product may expose the worker to small amounts of respirable free crystalline silica. IARC has placed crystalline silica in category 2A, (IARC believes that there is sufficient evidence of carcinogenicity in animals but evidence of the carcinogenicity to humans from this material is limited).

Carcinogenicity An IARC Working Group reported that there is limited evidence for the carcinogenicity of crystalline silica in humans (IARC S.7, 1987; IARC V.42, 1987). A number of studies have investigated the occurrence of lung cancer in humans diagnosed as having silicosis after occupational exposure to dust containing respirable crystalline silica. Of three case-control studies, two showed an association between silicosis and lung cancer. Seven cohort studies and one proportionate mortality study all demonstrated that lung cancer occurs more frequently in silicotics than in the general population.
This increase has been seen among miners, quarry workers, ceramic workers, granite workers, and stone workers. In some of these studies, the risk of lung cancer increased with duration of employment. Only rarely, however, was data obtained on smoking and on potential compounding exposures and the compatibility of the referent population assured (IARC V.42, 1987; IARC S.7, 1987).

Other Information Normally this material (in the as supplied state) contains very low concentrations of cristobalite and it is not expected that under normal usage where the overall dust concentrations are kept below 10 mg/m³, that cristobalite levels will not exceed the expose standard of 0.1 mg/m³.

12. ECOLOGICAL INFORMATION

Information on Ecological Effects Adverse effects of this material on the environment are not anticipated.

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Environ. Protection This product is not considered to be harmful to the environment under normal conditions.

13. DISPOSAL CONSIDERATIONS

Waste Disposal If waste generated cannot be reused, dispose of in an authorised landfill site complying with all local, federal and state regulations.

14. TRANSPORT INFORMATION

No special precautions required.

U.N. Number None Allocated

Proper Shipping Name None Allocated

DG Class None Allocated

Hazchem Code None Allocated

Packing Group None Allocated

15. REGULATORY INFORMATION

16. OTHER INFORMATION

DEMOLITION:

Personal Protective Equipment should include dust mask (P1/P2), safety glasses, boots and leather gloves. If dust levels are excessive then mechanical ventilation should be used to reduce them. Note that this product contains small amounts of crystalline silica, which may change form during service at elevated temperatures. Removal of these materials during demolition can generate respirable dusts containing small amounts of crystalline forms of silica; repeated/prolonged inhalation of these dusts can cause pulmonary fibrosis.

Material being demolished may have absorbed waste material from the metallurgical or heat containment process, and the nature and quantity of this should be considered when work practices are determined. Demolished material may usually be disposed of in an approved landfill, but consider any extraneous matter derived from the process and comply with all federal, state and local regulations.

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